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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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05/27/2004

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/013,084

Applicant(s)

DAUTARTAS ET AL.

Examiner

Daniel J Petkovsek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment received February 2, 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-28 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/17/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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DETAILED ACTION

This office action is in response to the amendment received February 2, 2004. In accordance with the amendment, claims 1-3, 7, 9, 11-17, and 19-22 have been amended; while new claims 23-28 have been added. It is noted that some of the amended limitations ([having] to comprising, [including] to comprising, etc.) create some awkward language in the claims. However, it is the decision of the Applicant how the claims are worded, as he is his own lexicographer. Claims 1-28 are pending.

Information Disclosure Statement

1. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on February 17, 2004, have been considered and made of record (note attached copy of forms PTO-1449).

Drawings

2. The drawings were received on February 2, 2004. These drawings are acknowledged.

Claim Objections

3. Claim 25 is objected to because of the following informalities: an extra period is included. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5, 7-15, and 19-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Jayaraj et al. U.S.P. No. 6,320,257.

Jayaraj et al. U.S.P. No. 6,320,257 teaches (ABS, Fig. 8B and 8C, column 8, lines 26-60) an optical device package (and inherent method of making same) comprising: a substrate 120 comprising an upper surface, an optical fiber 114 mounted to the substrate, a frame 122 mounted to the upper surface of the substrate, the frame comprising conductive pathways 126 extending through the top surface of the frame 122, and contact means 124 (solder bumps) disposed on the top surface of the frame for flip mounting the optical device to a platform. Regarding claim 2, 3, 7, and 8, see Fig. 8C for conductive pathways and solder bumps through/on frame 122.

Regarding claims 4 and 5, fiber is disposed between the substrate and frame, and is positioned in a "recess". Regarding claims 9 and 10, see laser 110. Regarding claims 11-14, frame has an interior ledge, while lid 116 (or lid 16) can be positioned above/below frame based on which upturned direction the device is construed as (with flip). Regarding claims 15, 23, 25, and 27, the fiber is in a groove. Regarding claim 20, lid 116 is mounted to a frame. Regarding claim 21, a lid 16 is mounted to the substrate. Regarding claim 22, the device is inherently connected to a circuit board, by use of the solder bumps 124 (during flip-chip use) and connected to pads. Regarding claims 24, 26, and 28, see claim 1 for hermetic sealing.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jayaraj et al. U.S.P. No. 6,320,257.

Jayaraj et al. U.S.P. No. 6,320,257 teaches (ABS, Fig. 8B and 8C, column 8, lines 26-60) an optical device package (and inherent method of making same) comprising: a substrate 120 comprising an upper surface, an optical fiber 114 mounted to the substrate, a frame 122 mounted to the upper surface of the substrate, the frame comprising conductive pathways 126 extending through the top surface of the frame 122, and contact means 124 (solder bumps) disposed on the top surface of the frame for flip mounting the optical device to a platform. Jayaraj et al. '257 does not explicitly teach the fiber disposed in a ferrule, or the specific shape of the frame.

Regarding claim 6, although not explicitly taught by Jayaraj et al. '257, it is well known in the art to use ferrules to encompass optical fiber to support and protect transmitted optical signals, and it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a ferrule to protect/support the optical fiber 114 in the device. Ferrules help maintain stability and position of fibers in optical device. Regarding claims 16 and 17, the shapes, although not explicitly taught, are non-critical design limitations of the device packaging, as they do not overcome the functionality of the device of Jayaraj et al. '257, the fibers and optical devices are maintained protected by the substrate and frame.

Allowable Subject Matter

8. Claims 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and

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any intervening claims. The relevant prior art does not teach or reasonably suggest using a *sintered ceramic* to form the frame.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of flip-chip modules: PTO-892 form references A-I.

It is noted that Mr. Jonathan Baskin requested similar pending published applications to be included on a PTO-892 reference list. *WO 00/31771 could not be found*, and should be submitted on a PTO-1449 form in response to this office action. If any requested pending published US applications have not been included on the 892, they have been previously considered on PTO-892 form dated October 30, 2003.

Since a new grounds of rejection has been made to new art (Jayaraj et al. U.S.P. No. 6,320,257 B1), this action is made a **NON-FINAL** rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel J Petkovsek
Examiner
Art Unit 2874

May 21, 2004



Brian Healy
Primary Examiner